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Election/Restrictions

Applicant's election of Group I, claims 1-14, in the reply filed on 1/12/2010 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 15-19 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 1/12/2010.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Shiela Loggins on 4/9/2010.

The application has been amended as follows:

IN THE CLAIMS:

Claims 2-6 and 12-19 were cancelled.

Claim 1 was replaced by the following:

-- 1. A process for the production of acrylylcholine, methacrylylcholine, 2-(N,N-dimethylamino)ethyl acrylate or 2-(N,N-dimethylamino)ethyl methacrylate comprising

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- a) reacting choline with acrylyl-CoA or methacrylyl-CoA and choline acetyltransferase to produce acrylylcholine or methacrylylcholine, respectively; or
- b) reacting acrylyl-CoA or methacrylyl-CoA with 2-(N,N-dimethylamino) ethanol and choline acetyltransferase to produce 2-(N,N-dimethylamino)ethyl acrylate or 2-(N,N-dimethylamino)ethyl methacrylate, respectively.--

Claims 7-11 were replaced by the following:

- 7. The process according to claim 1 wherein the source of the choline acetyltransferase is an organism that is disrupted with a surfactant.
- 8. The process according to claim 1 wherein the choline acetyl transferase is at least partially purified.
- 9. The process according to claim 1 wherein the acrylyl CoA or methacrylyl CoA is obtained by reacting coenzyme A with acrylate or methacrylate, respectively, ATP and S-acetyl CoA synthetase.
- 10. The process according to claim 9, wherein the reaction catalyzed by choline acetyltransferase and the reaction catalyzed by S-acetyl CoA synthetase takes place in one pot.
- 11. The process according to claim 10 wherein the reaction catalyzed by S-acetyl CoA synthetase takes place first and the products obtained thereby are converted into acrylylcholine or methacrylylcholine, respectively, by choline acetyltransferase. --

IN THE ABSTRACT:

The abstract was replaced by the following:

- A biocatalytic method for the synthesis of 2-(N,N-dimethyl amino)ethanol and/or choline esters of acrylic acid and/or methacrylic acid comprising reacting 2-(N,N-

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dimethylamino)ethanol and/or choline with acrylyl-CoA and/or methacrylyl-coA in the presence of a biocatalyst with choline acetyltransferase activity. The acrylyl-CoA and/or the methacrylyl CoA is formed by the reaction of acrylate and/or methacrylate with coenzyme A in the presence of ATP and a biocatalyst with S-acetyl coenzyme A synthetase activity.--

IN THE SPECIFICATION:

The following text was inserted on the line after the title on page 1 of the specification:

-- This application is a national stage entry of PCT/EP05/51046 filed 3/9/2005 which claims the benefit of priority to United Kingdom Application No. 040217.0, filed 3/19/2005. --

The following is an examiner's statement of reasons for allowance: The prior art neither teaches or suggests a method for producing acrylylcholine, methacrylylcholine, 2-(N,N-dimethylamino)ethyl acrylate or 2-(N,N-dimethylamino)ethyl methacrylate comprising reacting choline with acrylyl-CoA or methacrylyl-CoA and choline acetyltransferase to produce acrylylcholine or methacrylylcholine, respectively, or reacting acrylyl-CoA or methacrylyl-CoA with 2-(N,N-dimethylamino) ethanol and choline acetyltransferase to produce 2-(N,N-dimethylamino)ethyl acrylate or 2-(N,N-dimethylamino)ethyl methacrylate, respectively.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to SUSAN HANLEY whose telephone number is (571)272-2508.

The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Wityshyn can be reached on 571-272-0926. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Susan Hanley/
Examiner, Art Unit 1651

/Irene Marx/
Primary Examiner
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